



1. PRODUCT AND COMPANY IDENTIFICATION

Product name : POLITHERM 27 R SM BLACK RAL 9011 SM
Code : 12434209
Main recommended uses : Electrostatic powder paint for surface coating.
Address : Rodovia BR 280 - km 50
CEP 89270-000, Guaramirim - SC

Telephone : +55 47 3276-4000
Emergency telephone : 0800 720 8000
number
E-mail / site : tintas@weg.net | www.weg.net

2. HAZARD IDENTIFICATION

Mixture classification

Acute toxicity (Ingestion) : Category 4

Serious eye damage/eye irritation : Category 1

Skin sensitization : Category 1

Germ cell mutagenicity : Category 1A

Specific target organ toxicity - Repeated exposure : Category 2

Classification according to NBR 14725-2/2009

Labelling Elements



PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG

Rua Dr. Ulisses Guimarães, 918 – 09372-050 – Mauá – SP – Fone: + 55 (11) 4547-6100
Rodovia Br 280 – Km 50, 6.918 – Bloco A – 89270-000 – Guaramirim – SC – Fone: + 55 (47) 3276-4000
Rua Via VII, 314 – 54590-000 – Cabo de Santo Agostinho – PE – Fone: + 55 (81) 3512-3000
EMERGÊNCIA: +55 0800 720 8000 – E-mail: tintas@weg.net - www.weg.net



Warning phrase : Danger

Hazard phrases : H302 Harmful if swallowed.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H340 May cause genetic defects.
H373 May cause damage to organs through prolonged or repeated exposure.

Caution Phrases :

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Reaction:

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/if you feel unwell.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P308+P313 IF exposed or concerned: Call a doctor.

P310 Immediately call a POISON CENTER/doctor.

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

P405 Store locked up.

Treatment and disposal of waste:

P501 Dispose of contents/container as chapter 13 of the MSDS.

Other hazard : The finely dispersed particles form explosive mixtures in air, in the presence of sparks. Burning forms a thick black smoke. Inhalation of dangerous products of decomposition may cause serious damage to health.

PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG

Rua Dr. Ulisses Guimarães, 918 – 09372-050 – Mauá – SP – Fone: + 55 (11) 4547-6100
Rodovia Br 280 – Km 50, 6.918 – Bloco A – 89270-000 – Guarimirim – SC – Fone: + 55 (47) 3276-4000
Rua Via VII, 314 – 54590-000 – Cabo de Santo Agostinho – PE – Fone: + 55 (81) 3512-3000
EMERGÊNCIA: +55 0800 720 8000 – E-mail: tintas@weg.net - www.weg.net



3. COMPOSITION AND INFORMATION ABOUT THE INGREDIENTS

Product type: : Mixture

Ingredients that contribute to danger:

| Product name | CAS No. | Risk classification | Concentration [%] |
|-------------------------|-----------|---|-------------------|
| TRIGLICIDILISOCIANURATO | 2451-62-9 | Acute toxicity Ingestion, Category 3 Acute toxicity - Inhalation Inhalation, Category 3 Skin sensitization , Category 1 Specific target organ toxicity - Repeated exposure , Category 2 Hazardous to the aquatic environment - Chronic , Category 3 Germ cell mutagenicity , Category 1A Serious eye damage/eye irritation , Category 1 | >= 1 - < 5 |

4. FIRST AID MEASURES

- Inhalation** : Take the victim to fresh air, keeping them rested and warm. If breathing is irregular or has stopped, apply artificial respiration. Do not give anything orally. Seek medical assistance immediately, bringing the product label whenever possible.
- Contact with the skin** : Remove all contaminated clothing immediately. Wash affected area with plenty of soap and water.
- Contact with the eyes** : Remove contact lenses, if wearing any. Flush the eyes with running water for at least 15 minutes, holding the eyelids apart. Seek medical assistance immediately, bringing the product label with you.
- Ingestion** : Do not provoke vomiting. Consult with a doctor immediately.
- Notes for the doctor** : Treat symptomatically. Do not induce vomiting because of risk of aspiration of gastric contents into the lungs. Gastric lavage

PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG

Rua Dr. Ulisses Guimarães, 918 – 09372-050 – Mauá – SP – Fone: + 55 (11) 4547-6100
Rodovia Br 280 – Km 50, 6.918 – Bloco A – 89270-000 – Guarimirim – SC – Fone: + 55 (47) 3276-4000
Rua Via VII, 314 – 54590-000 – Cabo de Santo Agostinho – PE – Fone: + 55 (81) 3512-3000
EMERGÊNCIA: +55 0800 720 8000 – E-mail: tintas@weg.net - www.weg.net



is recommended when the patient ingests large quantities of the substance.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing methods** : Water in mist form
Carbon dioxide (CO₂)
Foam alcohol resistant
Dry chemical powder
- Extinguishing methods not recommended** : Direct water jet.
- Specific dangers** : The finely dispersed particles form explosive mixtures in air, in the presence of sparks. Burning forms a thick black smoke. Inhalation of dangerous products of decomposition may cause serious damage to health.
- Protective measures of the fire fighting team.** : The personnel involved in firefighting should wear self contained breathing apparatus with positive pressure and full protection clothes.
- Specific methods** : Evacuate and isolate the area. Approach from fire with wind at your back. Fight the fire to a secure distance. Remove the packaging of the product from the fire area if this can be made with safety. Chill sideways with water in form of fog all the closed packaging near the fire. Avoid that the resulting water from fire fighting reaches drains or waterways. Use dikes to contain this water and eliminate it according to environmental regulations.

6. SPILL / LEAK CONTROL PROCEDURES

Personal precautions, protective equipment and emergency procedures

- For the emergency service staff** : If specialized clothing is needed to combat the leak/spillage, Section 8 should be consulted. All precautions described in the following section must be followed.
- For staff who are not part of the emergency services** : No action should be taken that may generate danger to people without adequate training and qualifications. Use appropriate personal protective equipment - see section 8. Evacuate surrounding areas. Isolate area and keep onlookers away. Do not touch or walk through spilled material. Eliminate all sources of ignition. Avoid breathing vapor or mist. Provide adequate ventilation if possible. Wear appropriate respiratory mask when ventilation is inadequate. In accordance with

PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG

Rua Dr. Ulisses Guimarães, 918 – 09372-050 – Mauá – SP – Fone: + 55 (11) 4547-6100
Rodovia Br 280 – Km 50, 6.918 – Bloco A – 89270-000 – Guarimirim – SC – Fone: + 55 (47) 3276-4000
Rua Via VII, 314 – 54590-000 – Cabo de Santo Agostinho – PE – Fone: + 55 (81) 3512-3000
EMERGÊNCIA: +55 0800 720 8000 – E-mail: tintas@weg.net - www.weg.net



characteristics of the location and/or area and in relation to the amount of spilled/leaked product, additional emergency measures may be taken under the supervision of a trained professional.

Environmental precautions : Prevent spilled/leaked product from contact with soil, waterways, drains and sewers. Inform the relevant authorities in accordance with current legislation if the product causes environmental damage.

Methods and materials for containment and cleaning

Large spills / leaks : Stop the leak if this can be done safely. Cover up spillage in a tarp to prevent the spread by wind or rain. Use antifascantes tools and explosion-proof equipment properly grounded to collect the product. Place the material collected in dry, clean and properly identified containers. Cap the container loosened so removing them from the spill site. Avoid formation of dust. Remove the packaging from the spill site. If there is product disposal need refer to chapter 13

Small spills / leaks : The collected material can return to the process if you are in favorable conditions. Otherwise should be referred for appropriate disposal.

Dust control : Consult section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Instructions for safe treatment : Avoid contact with eyes, skin and clothes. Do not handle the product before reading and understanding all safety precautions. Do not re-use packaging. Refer to special instructions before use. Avoid inhalation of the powder. Do not eat, drink or smoke during use.

Precautions for safe handling : Use individual protective equipment. Environments and areas that will be used for electrostatic spraying of powder paints must provide controlled ventilation. Through controlled ventilation it must be ensured that the air in the inhalation scope is healthy from a health point of view (see limits in Section 8). Avoid sources of ignition and dust deposition in the environment. Antistatic clothes and shoes are recommended. Emergency showers and eye wash basins must be installed in locations of use and storage.

Fire protection : Tools that do not produce sparks should be used. Keep away from heat and sources of ignition. Do not smoke. Avoid accumulation of electrostatic charges. All conductive elements of the system, in contact with the product, must be electrically

PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG



groundedOnly use in well-ventilated locations, to prevent accumulation of powder in explosive concentrations.

Storage conditions

Substances to be avoid : Keep away from oxidising agents, strong acid solutions and strong alkaline solutions.

Storage conditions : The electrical installation must comply with NEC(National Electrical Code) or IEC (International Electrical Commission) standards and/or those of the ABNT (Brazilian Association of Technical Standards). The floor of the storage area must be impermeable, non-combustible.

Appropriate storage conditions : Store the material in covered, dry, well ventilated and identified areasStore at a temperature below 30°C.Store in a closed container.Keep out of direct sunlight.

Inappropriate storage conditions : Exposed to elevated temperatures, sun and rain.Close to oxidizing agents.Close to food.Close to sources of heat and ignition.

Materials to avoid : Do not store with explosive materials, flammableand/or toxic gases, oxidizing, corrosive substances, or materials that may generate spontaneous combustion.

Secure packaging materials

Recommended packaging materials : Must be stored in plastic bags packed in cardboard boxes.

Packaging materials to be avoided : Glass containers.

8. EXPOSURE CONTROL – PERSONAL PROTECTION

The information in this chapter contain general guidelines. Chapter 1 should be consulted for any information on the recommended use of this product in different scenarios of exposure.

Engineering control measures : Preferably use the product in adequate application cabin. In case it is not possible, provide exhaustion/ventilation enough to keep the concentration of the agents indicated in this section under the limits of tolerance (L.T.), otherwise, use adequate respiratory protection equipment. The engineering controls should keep the concentrations of gas/vapour under the limit of LEL - Lower Explosive Limit (see section 9). Use equipment explosion proof.

Control parameters

PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG

Rua Dr. Ulisses Guimarães, 918 – 09372-050 – Mauá – SP – Fone: + 55 (11) 4547-6100
Rodovia Br 280 – Km 50, 6.918 – Bloco A – 89270-000 – Guaratuba – SC – Fone: + 55 (47) 3276-4000
Rua Via VII, 314 – 54590-000 – Cabo de Santo Agostinho – PE – Fone: + 55 (81) 3512-3000
EMERGÊNCIA: +55 0800 720 8000 – E-mail: tintas@weg.net - www.weg.net

**Occupational Exposure Limits**

| Name | CAS No. | TLV/TWA | TLV/STEL | TLV/TETO | Source |
|-----------------------------|-----------|------------------------|----------|----------|--------|
| TRIGLICIDILISOCIANU RATO | 2451-62-9 | 0,05 mg/m ³ | | | ACGIH |

*PPM - parts of vapour or gas per million of parts of contaminated air

**MG/m³ - miligrams per cubic meter of air.

Personal protective equipment required

Respiratory protection : If the powder is above the tolerance limits (see engineering control measures, above) a dust mask must be used, suitable for this purpose (P2 particle filter). Occasionally other respiratory protective equipment may be used.

Hand protection : Protective creams can be used to protect exposed skin areas together with latex or nitrile gloves (never used after the exposure has occurred).

Eye protection : Use hermetic goggles to protect against powder spray.

Body and skin protection : Antistatic clothes and shoes are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|------------------------------|--------------------------|
| Form | : Dust |
| State of matter | : Solid |
| Color | : Black |
| Odour | : Weak and distinctive |
| Odour limit | : Not applicable |
| pH | : Not applicable |
| Melting point | : Not applicable |
| Boiling point | : Not applicable |
| Evaporation rate | : Not applicable |
| Inflammation point | : Method: Not applicable |
| Upper explosive limit | : 70 g/m ³ |
| Lower explosive limit | : 40 g/m ³ |
| Vapor pressure | : Not applicable |
| Density | : 1,78 g/cm ³ |

PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG

Rua Dr. Ulisses Guimarães, 918 – 09372-050 – Mauá – SP – Fone: + 55 (11) 4547-6100
 Rodovia Br 280 – Km 50, 6.918 – Bloco A – 89270-000 – Guarimirim – SC – Fone: + 55 (47) 3276-4000
 Rua Via VII, 314 – 54590-000 – Cabo de Santo Agostinho – PE – Fone: + 55 (81) 3512-3000
 EMERGÊNCIA: +55 0800 720 8000 – E-mail: tintas@weg.net - www.weg.net



| | |
|--|--|
| Solubility(ies) | : Insoluble in water, partially soluble in some solvents and thinners oxygen as acetone , ethyl acetate , methyl ethyl ketone, among others. |
| N-octano /water partition coefficient | : Not applicable |
| Auto flammability | : 400 °C |
| Cinematic viscosity (25°C) | : Not applicable |
| Vapor density | : Not applicable |
| Decomposition temperature | : |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Reactivity | : Presents no reactivity at room temperature and under normal conditions of use. |
| Chemical stability | : Stable at room temperature and under normal conditions of use. |
| Possibility of dangerous reactions | : Presents no reactivity at room temperature and under normal conditions of use. None when the product is stored, applied and processed correctly. Otherwise, the mixture powder air mixture could ignite. |
| Need to add additives and inhibitors | : Not necessary. |
| Conditions to avoid | : Extreme heat and open flame. |
| Incompatible materials | : Do not store with explosive materials, flammable and/or toxic gases, oxidizing, corrosive substances, or materials that may generate spontaneous combustion. |
| Dangerous products of decomposition | : High temperatures (above 300°C) could result in dangerous products of decomposition, such as carbon dioxide and smoke. Triglycidylisocyanurate can polymerize under the effect of strong heat, exceeding 120°C for more than 12 hours, or under the influence of catalysts. Decompose when burning, producing toxic fumes comprising nitrogen oxides. Thawed rapidly reacts with primary and secondary amines, carboxylic acids and anhydrides, thiols, phenols and alcohols. |

PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG

Rua Dr. Ulisses Guimarães, 918 – 09372-050 – Mauá – SP – Fone: + 55 (11) 4547-6100
 Rodovia Br 280 – Km 50, 6.918 – Bloco A – 89270-000 – Guarimirim – SC – Fone: + 55 (47) 3276-4000
 Rua Via VII, 314 – 54590-000 – Cabo de Santo Agostinho – PE – Fone: + 55 (81) 3512-3000
 EMERGÊNCIA: +55 0800 720 8000 – E-mail: tintas@weg.net - www.weg.net



11. TOXICOLOGICAL INFORMATION

Components**TRIGLICIDILISOCIANURATO**

| | | |
|--|--|---------------------|
| Acute toxicity by oral use | : Test species DL50 Observations | Data not available. |
| Acute toxicity by inhalation | : Test species DL50 Observations | Rat 2.000 mg/l |
| Acute toxicity by cutaneous use | : Test species DL50 Observations | Rabbit 0,5 mg/kg |
| Acute toxicity (other methods of administration) | : Test species DL50 LC50 Non-standard unit value | Data not available. |
| Corrosion/irritation of skin | : Data not available. | |
| Serious eye damage/eye irritation | : Category 1 | |
| Respiratory or dermal sensitivity | : Category 1 | |
| Mutageneses | : Chemicals known to induce heritable mutations in human germ cells. | |
| Carcinogenicity | : Data not available. | |
| Toxic effects for reproduction | : Data not available. | |
| Specific target organ toxicity (STOT) - single exposure | : Data not available. | |
| Specific target organ toxicity (STOT) - repeat exposure | : Substance based on evidence from studies in experimental animals can probably present a potential to be harmful to human health on repeated exposure | |
| Aspiration hazard | : Data not available. | |

Acute toxicity

Powder coatings are generally inert dusts . No data are available on acute toxicity for the product. Powder coatings can cause irritation located in the skin , especially in skin folds or use of tight clothes . People allergic or respiratory problems should not work in the powder application. Repeated or prolonged contact with the product may cause removal of natural fat from the skin , resulting in non allergic contact dermatitis and skin absorption . The product that comes into contact with the eyes can cause irritation.

Chronic toxicity**PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG**

Rua Dr. Ulisses Guimarães, 918 – 09372-050 – Mauá – SP – Fone: + 55 (11) 4547-6100
 Rodovia Br 280 – Km 50, 6.918 – Bloco A – 89270-000 – Guarimirim – SC – Fone: + 55 (47) 3276-4000
 Rua Via VII, 314 – 54590-000 – Cabo de Santo Agostinho – PE – Fone: + 55 (81) 3512-3000
 EMERGÊNCIA: +55 0800 720 8000 – E-mail: tintas@weg.net - www.weg.net



On the skin , prolonged contact leads to degreasing , may cause fissures , dryness , dermatitis and eczema. The respiratory system may be affected by chronic bronchitis and decreased respiratory volume. Exposure of pregnant women to concentrations above the limit can present threat of abortion. In contact with eyes, do not rub , wash with running water for at the least 15 minutes.

Not classified in terms of toxicity based on the data available.

12. ECOLOGICAL INFORMATION

- Stability in soil** : Data not available.
- Elimination of chemical physical ability** : Not considered potentially bioaccumulative.
- Other toxicological observations** : Data not available.
- Ecotoxicity** : Detrimental to the flora.
Detrimental to the fauna
Contaminates the ground water.

13. DIOSPOSAL AND TREATMENT CONSIDERATIONS

Recommended methods for final disposal

- Product** : Class I Waste - Dispose of in industrial landfill or a facility authorized for recycling in accordance with federal, state or local regulations
- Waste** : Class I Waste - Dispose of in industrial landfill or a facility authorized for recycling in accordance with federal, state or local regulations
- Used packaging** : Clean packaging should be sent for recycling. Packaging with class I waste should be disposed of in industrial landfill or a facility authorized for recycling in accordance with federal, state or local regulations.

14. TRANSPORTATION INFORMATION

International and national regulations

- Land** : Not classified as a dangerous good under transport regulations.

PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG

Rua Dr. Ulisses Guimarães, 918 – 09372-050 – Mauá – SP – Fone: + 55 (11) 4547-6100
Rodovia Br 280 – Km 50, 6.918 – Bloco A – 89270-000 – Guarimirim – SC – Fone: + 55 (47) 3276-4000
Rua Via VII, 314 – 54590-000 – Cabo de Santo Agostinho – PE – Fone: + 55 (81) 3512-3000
EMERGÊNCIA: +55 0800 720 8000 – E-mail: tintas@weg.net - www.weg.net



Shipping : Not classified as a dangerous good under transport regulations.

Air transport : Not classified as a dangerous good under transport regulations.

15. REGULATORY INFORMATION

This MSDS (Material Safety Data Sheet) was generated according to the criteria of NBR 14725/2014. (Brazilian standard that defines the GHS).

| | |
|--|--|
| Specific Regulations for the Chemical Product. | <p>Federal Decree No. 2657, July 3rd , 1998.</p> <p>Ordinance No. 229, May 24th, 2011 - Changes to Regulatory Standard No. 26.</p> <p>ABNT NBR 14725: 2014 - valid from 19/12/2014 - Amendment 1 (19/11/2014).</p> <p>Law No. 12305, August 2nd 2010 (Solid Waste National Policy).</p> <p>Decree No. 7404, December 23rd , 2010.</p> <p>Resolution ANTT N° 5.232, December 14th 2016.</p> |
|--|--|

16. ADDITIONAL INFORMATION

Acronyms Used:

Legenda:

| | |
|-----------------|---|
| CAS | Chemical Abstract Service |
| VO | Organic Vapors |
| NEC | National Eletrical code/Código Nacional de Eletricidade |
| IEC: | International Eletrical Commision |
| ABNT | Brazilian Association of Technical Standards |
| ACGIH | American Conference of Governmental Industrial Hygienists |
| TLV | Threshold Limit Values |
| TLV/TWA | Time Weighted Average |
| TLV/STEL | Short Term Exposure Limit |

PAUMAR S.A. INDÚSTRIA E COMÉRCIO – GRUPO WEG

Rua Dr. Ulisses Guimarães, 918 – 09372-050 – Mauá – SP – Fone: + 55 (11) 4547-6100
 Rodovia Br 280 – Km 50, 6.918 – Bloco A – 89270-000 – Guarimir – SC – Fone: + 55 (47) 3276-4000
 Rua Via VII, 314 – 54590-000 – Cabo de Santo Agostinho – PE – Fone: + 55 (81) 3512-3000
 EMERGÊNCIA: +55 0800 720 8000 – E-mail: tintas@weg.net - www.weg.net

MATERIAL SAFETY DATA SHEET - MSDS

Product name POLITHERM 27 R SM BLACK RAL 9011 SM Code 12434209



Last revision: 17.08.2018

Page: 12 of 12

| | |
|---------------|---|
| TLC/C: | Tolerance Limit - Ceiling Value |
| EPI: | Individual Protective Equipment |
| CA | Approval Certificate |
| PPRA | Environmental Risk Prevention Program |
| NR | Regulatory Standard |
| NFPA | National Fire Protection Agency |
| mmHg | Millimeters of mercury - pressure unit |
| DL50 | Lethal Dose average |
| CL50 | Lethal Concentration average |
| ppm | Parts per million |
| N.d | Not available |
| A+B | Viscosity of the mixture of component A + component B |

Important information, but not specifically described in the previous sections:
 This MSDS was prepared based on current knowledge about the handling of the product under normal conditions of use, according to the application specified on the packaging and recommended usage in Section 1 of this MSDS. Any other use of the product involving its combination with other materials, as well as forms of use different from those indicated, are the user's responsibility. The company advises that the handling of any chemical substance requires prior knowledge of its hazards by the user. In the workplace it is responsibility of the company user of the product to provide training of its employees and contractors about the possible risks arising from exposure to the chemical.
 We reserve the right to change the information contained in this document without prior notice, due to the improvement and continuous evolution of the product and technical knowledge.

References : Data not available.

Vertical lines in the left hand margin indicate changes from the current version